



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,569	01/10/2002	Giuseppe Dal Pra	Q67744	5210
3624	7590	12/16/2003	EXAMINER	
VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			LUONG, VINH	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SL

Office Action Summary	Application No.	Applicant(s)
	10/041,569	DAL PRA, GIUSEPPE
	Examiner	Art Unit
	Vinh T Luong	3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 8/20/03 & 10/6/03.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2,4 and 7-25 is/are pending in the application.
 - 4a) Of the above claim(s) 7 and 8 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,4 and 9-25 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Vinh T. Luong
Primary Examiner

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 August 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>13</u> .	6) <input checked="" type="checkbox"/> Other: <i>Exhibit</i> .

1. The Amendment filed on August 20, 2003 (Paper No. 12) has been entered.
2. Claims 7 and 8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 9.
3. This application contains claims 7 and 8 drawn to an invention nonelected with traverse in Paper No. 9. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
4. The proposed drawing corrections and/or substitute sheet of drawings filed on August 20, 2003, have been approved by examiner.
5. The amendment to the claims filed on August 20, 2003 does not comply with the requirements of 37 CFR 1.121(c) because, e.g., applicant does not (a) rewrite the entire claims with *all* changes (e.g., additions and deletions); and (b) show the text of *any* deleted matter by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. For example, applicant deletes the recitation “is destined” in line 12 of original claim 1 and replaces it by “which is,” however, applicant does not rewrite the recitation “is destined” and strike through it.
6. Claim 12 is objected to because of the following informalities: the claim contains typographical or grammatical error, e.g., “to to the shaft and rocker arm” in line 21 of claim 12 should have been “to the shaft and a rocker arm.” Appropriate correction is required.
7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1, 2, 4, 9-14, and 19-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear whether the terms that appear at least twice, such as, (a) "a bicycle" in lines 2 and 3 of claims 1, 9, 12, and 19; and (b) "a gear" in claims 10 and 13 refer to the same or different things. See MPEP 2173.05(o).

9. Claims 1, 2, 4, 9-11, 13, 14, and 19, as best understood, and claims 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Romano'683 (US Patent No. 5,257,683).

Regarding claim 1, Romano'683 teaches a combined gear change and brake control unit for a bicycle comprising:

a support body 3 which can be fastened to said bicycle,
a brake control lever 12 pivotally mounted on the support body 3 around a first axis 11 (id., line 21 et seq., column 5),
a gear change control unit carried by the support body 3, comprising a shaft 24 turning around a second axis 23 positioned substantially orthogonally to said first axis 11, in which the shaft 24 carries a pulley 27 on which an end portion (Fig. 2) is configured to receive a control cable 29 of a derailleur which is to be wound, and in which said shaft 24 is subject to a return torque tending to turn the shaft 24 towards a direction in which the cable 29 is released,
a gear change lever 50 (Fig. 1) arranged behind the brake control lever 12 for controlling the rotation of said shaft 24 in a direction of increased winding of the cable 29, and
a button lever 37 (Figs. 2, 3, and 5) arranged on a side of said support body 3 for controlling the rotation of said shaft 24 in the release direction of the cable 29,

wherein the gear change control unit comprises a ratchet mechanism 25, 26 controlled by said button lever 37 and subject to assuming a home position and an active position, the ratchet mechanism 25, 26 is arranged so to leave the shaft 24 free to turn by a predetermined amount in the release direction of the cable 29, under the action of said return torque following each variation of position of the ratchet mechanism 25, 26 between the home position (i.e., the stable position when the end of the spring 26 is engaged with the notch/groove between the teeth of the gear 15. See Exhibit attached and line 62, column 5 through line 14, column 6 and the active position when an end of the spring 26 is disengaged from the notch/groove of the gear 25 as seen in Fig. 4 (i.e., when the end of the spring 26 is between the teeth of the gear 15) and vice versa, and

said button lever 37 and said ratchet mechanism 25, 26 are two separate components (Figs. 4 and 5), oscillating independently with respect to the support body 3, elastic means 41 (Fig. 2) being provided to urge said button lever 37 towards an end of stroke stop.

Claim 1 and other claims below are anticipated by Romano'683 because Romano'683 teaches each and every positive claimed element including the applicant's intended use. It is well established that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art teaches all the structural limitations of the claims. *Ex parte Masham*, 2 USPQ2d 1647 (BPAI 1987). Put in another fashion, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. *Mathis v. Hydro Air*

Industries, 1 USPQ2d 1513, 1523 (DC C. Calif. 1986) and cases cited therein. In other words, the functional limitations of a claim may not be given patentable weight where those limitations are inherent in a prior art reference. *In re Schreiber*, 44 USPQ2d 1429 (CAFC 1997).

Regarding claim 2, said ratchet mechanism 25, 26 comprises a gear 25 fastened to the support body 3 with a first and a second meshing unit 26 (Fig. 4) co-operating with said gear 25.

Regarding claim 4, the first and second meshing unit 26 are arranged so to retain the gear 25 in said release direction of the cable 29.

Regarding claim 9, Romano'683 teaches a combined gear change and brake control unit for a bicycle comprising:

a support body 3 which can be fastened to a bicycle;
a brake control lever 12 pivotally mounted on the support body 3 around a first axis 11;

a gear change control unit carried by the support body 3, comprising a shaft 24 turning around a second axis 23, positioned orthogonally to said first axis 11, in which the shaft 24 carries a pulley 27 on which an end portion 29a of a control cable 29 of a derailleur is destined to be wound, and in which said shaft 24 is subject to a return torque tending to turn the shaft 24 towards a direction in which the cable 29 is released;

a gear change lever 50 arranged behind the brake control lever 12 for controlling the rotation of said shaft 24 in a direction of most winding of the cable 29; and

a button lever 37 arranged on a side of said support body 3 for controlling the rotation of said shaft 24 in the release direction of the cable 29;

wherein the gear change control unit comprises a ratchet mechanism 25, 26

controlled by said button lever 37 and subject to assuming a home position and an active position, the ratchet mechanism 25, 26 is arranged to leave the shaft 24 free to turn by a predetermined amplitude in the release direction of the cable 29, under the action of said return torque following each variation of position of the ratchet mechanism 25, 26 between the home position and the active position, and vice versa, and

an elastic means 26 urges the ratchet mechanism 25, 26 toward the home position.

Claim 9 is anticipated by Romano'683 because the resiliency of the springs 26 urges the ratchet mechanism 25, 26 toward the home/stable position as expressly described in line 62 et seq., column 5.

Regarding claims 10, 11, 13, and 14, see regarding claims 2 and 4 above.

Regarding claim 15, Romano'683 teaches a combined bicycle gear change and brake control unit comprising:

a support body 3 which can be fastened to a bicycle;

a brake control lever 12 pivotally mounted on the support body 3 around a first axis 11;

a gear change control unit carried by the support body 3, comprising a shaft 24 turning around a second axis 23 that is positioned orthogonally to said first axis 11, the shaft 24 attached to a pulley 27 about which an end portion 29a of a derailleuer control cable 29 is destined to be wound, and the shaft 24 is subject to a return torque that turns the shaft 24 towards a first direction;

a gear change lever 50 for controlling the rotation of the shaft 24 in the first direction;

a button lever 37 arranged on a side of the support body 3 for controlling the rotation of the shaft 24 in a second direction;

a ratchet mechanism 25, 26 controlled by said button lever 37, having a home or stable position and an active position, the ratchet mechanism 25, 26 is arranged to leave the shaft 24 free to turn by a predetermined amplitude in the second direction, under the action of said return torque following each variation of position of the ratchet mechanism 25, 26 between the home position and the active position, and vice versa; and

a (resilient) means 26 that pushes the ratchet mechanism 25, 26 toward the home position.

Regarding claim 16, the first direction is a direction that winds the cable 29 onto the pulley 27 and the second direction unwinds the cable 29 from the pulley 27.

Regarding claim 17, the first direction is a clockwise direction and the second direction is a counterclockwise direction. Ibid., line 45 et seq., column 2.

Regarding claim 18, the first direction is a counterclockwise direction and the second direction is a clockwise direction. Ibid., line 45 et seq., column 2.

Regarding claim 19, Romano'683 teaches a combined gear change and brake control unit for a bicycle comprising:

a support body 3 which can be fastened to a bicycle;
a brake control lever 12 pivotally mounted on the support body 3 around a first axis 11;
a gear change control unit carried by the support body 3 comprising a shaft 24

turning around a second axis 23 positioned substantially orthogonally to the first axis 11, in which the shaft 24 carries a pulley 27 on which an end portion is configured to receive a control cable 29 of a derailleur which is to be wound, and in which the shaft 24 is subject to a return torque tending to turn the shaft 24 towards a direction in which the cable 29 is released;

a gear change lever 50 arranged behind the brake control lever 12 for controlling the rotation of the shaft 24 in a direction of increased winding of the cable 29; and

a button lever 37 arranged on a side of the support body 3 for controlling the rotation of the shaft 24 in the release direction of the cable 29;

wherein the gear change control unit comprises a ratchet mechanism 25, 26 controlled by the button lever 37 and subject to assuming a home/stable position and an active position, the ratchet mechanism 25, 26 is arranged to leave the shaft 24 free to turn by a predetermined amount in the release direction of the cable 29, under the action of the return torque following each variation of position of the ratchet mechanism 25, 26 between the home/stable position and the active position, and vice versa.

1. Claim 12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

11. Claims 20-25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

13. Applicant's arguments filed August 20, 2003 have been fully considered but they are not persuasive.

At the outset, applicant states that "Amended claim 1 combines the allowable subject matter previously in claim 3. New claim 9 combines claim 6 as original claims 3, 5, and 6 were indicated as allowable, pending claims 1, 9, and 12 are allowable. New claim 15 combines the subject matter of claims 5 and 1 but defines the rotation direction of the cable differently than is claimed in claim 9. New claims 10, 11, 13, 14, and 16-18 depend from independent claims that contain subject matter already indicated as allowable."

The examiner respectfully submits that claims 3, 5, and 6 call for the rocker arm 42 pivotally mounted around an axis 44. The rocker arm 42 is patentably distinguished from the springs 26 of Romano'683, thus, original claims 3, 5, and 6 were indicated to be allowable. However, applicant's amended claim 1 and new claims 9 and 15 do not call for the rocker arm, thus, these claims 1, 9, and 15 are not rewritten to "include *all of the limitations* of the base claim and any intervening claims" as suggested in the previous Office action on April 17, 2003. Consequently, these claims are rejected again in the instant Office action.

Applicant further contends that:

Romano does not provide for shifting by releasing the shaft 24 so that "the shaft [is] free to turn by a predetermined amount in the release direction of the cable," as claim 19 describes. Romano's downshifting, in contrast, requires the forceful interaction of the teeth on the wheel. This type of downshifting requires a long stroke and forceful push on Romano's lever 37. The claimed unit avoids Romano's gear and tooth interaction, and pushing the lever 32 requires a shorter stroke than Romano. The reason is that in the claimed gear unit, downshifting is accomplished by the disengagement of the tooth and gear; after disengagement, the tension in the cable rotates the freely turning gear and the downshift occurs.

The examiner respectfully submits that the recitation, such as, "the ratchet mechanism is arranged to leave the shaft free to turn by a predetermined amount in the release direction of the cable" merely states result of limitations in the claims, thus, it adds nothing to claim's patentability or substance. *Texas Instruments, Inc. v. International Trade Commission*, 26 USPQ2d 1018 (CAFC 1993). See also *Ex parte Masham*, *Mathis v. Hydro Air Industries*, and *In re Schreiber*, *supra*. On the other hand, Romano's Fig. 2 shows that when the tooth 35 of the plate or pawl 39 is spaced (disengaged) from the teeth 34 of the wheel/gear 27, 25 (Fig. 1), the wheel/gear 27, 25 is freely rotatable, consequently, the shaft 24 of the gear 27/25 is freely rotatable therewith. *Ibid.*, line 62, column 5, through line 61, column 6.

Applicant's tandem arguments, such as, "Romano's downshifting, in contrast, requires the forceful interaction of the teeth on the wheel. This type of downshifting requires a long stroke and forceful push on Romano's lever 37. The claimed unit avoids Romano's gear and tooth interaction, and pushing the lever 32 requires a shorter stroke than Romano" are likewise apparently lack proper foundation. The claims in this case are not process claims, thus, the recitation with respect to the manner in which applicant's claimed apparatus is intended to be employed does not differentiate the claimed apparatus from Romano'683's apparatus when Romano'683 teaches all the structural limitations of the claims. *Ex parte Masham*, *supra*.

For the reasons stated above, the request for reconsideration and allowance of this case is respectfully denied.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T Luong whose telephone number is 703-308-3221. The examiner can normally be reached on Tuesday – Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Luong

December 11, 2003



Vinh T. Luong
Primary Examiner

EXHIBIT